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## RAW SEQUENCE LISTING

DATE: 01/28/2004

PATENT APPLICATION: US/09/856,339B

TIME: 10:42:28

Input Set : A:\P02196US0.txt

Output Set: N:\CRF4\01282004\I856339B.raw

3 <110> APPLICANT: Wong, Luet  
 5 <120> TITLE OF INVENTION: Process for oxidising terpenes  
 7 <130> FILE REFERENCE: P02196US0  
 9 <140> CURRENT APPLICATION NUMBER: US 09/856,339B  
 C--> 10 <141> CURRENT FILING DATE: 2001-08-15  
 12 <150> PRIOR APPLICATION NUMBER: PCT/GB99/03873  
 13 <151> PRIOR FILING DATE: 1998-11-19  
 15 <160> NUMBER OF SEQ ID NOS: 24  
 17 <170> SOFTWARE: PatentIn version 3.1  
 19 <210> SEQ ID NO: 1  
 20 <211> LENGTH: 1242  
 21 <212> TYPE: DNA  
 22 <213> ORGANISM: Pseudomonas putida  
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 25 <221> NAME/KEY: misc\_feature  
 26 <222> LOCATION: (1)..(1242)  
 27 <223> OTHER INFORMATION: Coding Sequence  
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 33 cacctggtat tcgacttcga catgtacaat ccgtogaate tgtctgccgg cgtgcaggag 120  
 35 gcctgggcag ttctgcaaga atcaaacgta ccggatctgg tgtggactcg ctgcaacggc 180  
 37 ggacactgga tcgccactcg cggccaactg atccgtgagg cctatgaaga ttaccgccac 240  
 39 ttttccagcg agtgcccgtt catccctcgt gaagccggcg aagcctacga cttcattccc 300  
 41 acctcgatgg atccgcccga gcagcgccag tttcgtgcgc tggccaacca agtggttggc 360  
 43 atgccggtgg tggataagct ggagaaccgg atccaggagc tggcctgctc gctgatcgag 420  
 45 agcctgcgcc cgcaaggaca gtgcaacttc accgaggact acgccgaacc cttcccgata 480  
 47 cgcactttca tgctgctcgc aggtctaccg gaagaagata tcccgcactt gaaataccta 540  
 49 acggatcaga tgaccctgcc ggatggcagc atgaccttcg cagaggccaa ggaggcgctc 600  
 51 tacgactatc tgataccgat catcgagcaa cgcaggcaga agccgggaac cgacgctatc 660  
 53 agcatcgttg ccaacggcca ggtcaatggg cgaccgatca ccagtgcga agccaagagg 720  
 55 atgtgtggcc tgttactggt cggcggcctg gatacgggtg tcaatttcct cagcttcagc 780  
 57 atggagttcc tggccaaaag cccggagcat cgccaaggagc tgatcgagcg tcccagcgct 840  
 59 attccagccg cttgcgagga actactccgg cgcttctcgc tggttgccga tggccgcatc 900  
 61 ctcacctccg attacgagtt tcatggcgtg caactgaaga aaggtgacca gatcctgcta 960  
 63 ccgcagatgc tgtctggcct ggatgagcgc gaaaacgcct gcccgatgca cgtcgacttc 1020  
 65 agtcgcaaaa aggtttcaca caccaccttt ggccacggca gccatctgtg ccttggccag 1080  
 67 cacctggccc gccgggaaat catcgtcacc ctcaaggaat ggctgaccag gattcctgac 1140  
 69 ttctccattg ccccggtgc ccagattcag cacaagagcg gcatcgtcag cggcgtgcag 1200  
 71 gcactccctc tgggtctggga tccggcgact accaaagcgg ta 1242  
 74 <210> SEQ ID NO: 2  
 75 <211> LENGTH: 3150  
 76 <212> TYPE: DNA  
 77 <213> ORGANISM: Bacillus megaterium

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80 <221> NAME/KEY: misc_feature
81 <222> LOCATION: (1)..(3150)
82 <223> OTHER INFORMATION: Coding Sequence
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90 tttaaattcg aggcgcctgg tcgtgtaacg cgctacttat caagtcagcg tctaattaaa      180
92 gaagcatgcg atgaatcacg ctttgataaa aacttaagtc aagcgcttaa atttgtagct      240
94 gattttgcag gagacgggtt atttacaagc tggacgcatg aaaaaaattg gaaaaagcgc      300
96 cataatatct tacttccaag cttcagtcag caggcaatga aaggctatca tgcgatgatg      360
98 gtcgatatcg ccgtgcagct tgttcaaaag tgggagcgtc taaatgcaga tgagcatatt      420
100 gaagtaccgg aagacatgac acgtttaacg cttgatacaa ttggtctttg cggctttaac      480
102 tatcgcttta acagctttta ccgagatcag cctcatccat ttattacaag tatggctcgt      540
104 gcaactggatg aagcaatgaa caagctgcag cgagcaaatc cagacgaccc agcttatgat      600
106 gaaaacaagc gccagtttca agaagatatc aaggatgatga acgacctagt agataaaatt      660
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110 ggaaaagatc cagaaacggg tgagccgctt gatgacgaga acattcgcta tcaaattatt      780
112 acattcttaa ttgcgggaca cgaaacaaca agtggctctt tatcatttgc gctgtatttc      840
114 ttagtgaaaa atccacatgt attacaaaaa gcagcagaag aagcagcacg agttctagta      900
116 gatcctgctc caagctacaa acaagtcaaa cagcttaaat atgtcggcat ggtcttaaac      960
118 gaagcgctgc gcttatggcc aactgctcct gcgttttccc tatatgcaaa agaagatacg      1020
120 gtgcttgag gagaatatcc tttagaaaaa ggcgacgaac taatggttct gattcctcag      1080
122 cttcaccgtg ataaaacaat ttggggagac gatgtggaag agttccgtcc agagcgtttt      1140
124 gaaaatccaa gtgcgattcc gcagcatgcg tttaaaccgt ttggaaacgg tcagcgctgcg      1200
126 tgtatcggtc agcagttcgc tcttcataaa gcaacgctgg tacttggtat gatgctaaaa      1260
128 cactttgact ttgaagatca taaaactac gagctggata ttaaagaaac tttaacgtta      1320
130 aaacctgaag gctttgtggt aaaagcaaaa tcgaaaaaaa ttccgcttgg cggatttcct      1380
132 tcacctagca ctgaacagtc tgccaaaaaa gcacgcaaaa aggcagaaaa cgctcataat      1440
134 acgcccgtgc ttgtgctata cggttcaaat atgggaacag ctgaaggaac ggcgcgtgat      1500
136 ttagcagata ttgcaatgag caaaggattt gcaccgcagg tcgcaacgct tgattcacac      1560
138 gccggaaatc ttccgcgcga aggagctgta ttaattgtaa cggcgtctta taacggtcat      1620
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142 aaaggcgctc gctactccgt atttggatgc ggcgataaaa actgggctac tacgtatcaa      1740
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146 cgcggtgaag cagatgcaag cgacgacttt gaaggcacat atgaagaatg gcgtgaacat      1860
148 atgtggagtgc acgtagcagc ctactttaac ctgcacattg aaaacagtga agataataaa      1920
150 tctactcttt cacttcaatt tgtcgacagc gccgcggata tgccgcttgc gaaaatgcac      1980
152 ggtgcgtttt caactgaacgt cgtagcaagc aaagaacttc aacagccagg cagtgcacga      2040
154 agcacgcgac atcttgaaat tgaacttcca aaagaagctt cttatcaaga aggagatcat      2100
156 ttaggtgtta ttccctcgaa ctatgaagga atagtaaacc gtgtaacagc aaggttcggc      2160
158 ctatagtcac cacagcaaat ccgtctggaa gcagaagaag aaaaattagc tcatttgcca      2220
160 ctgcgtaaaa cagtatccgt agaagagctt ctgcaatacg tggagcttca agatcctgtt      2280
162 acgcgcacgc agcttcgcgc aatggctgct aaaacggctc gcccgccgca taaagtagag      2340
164 cttgaagcct tgcttgaaaa gcaagcctac aaagaacaag tgctggcaaa acgtttaaca      2400
166 atgcttgaac tgcttgaaaa ataccggcg tgtgaaatga aattcagcga atttatcgcc      2460
168 cttctgccaa gcatacgccc gcgctattac tcgatttctt catcacctcg tgcgatgaa      2520
170 aaacaagcaa gcatacggg cagcgttgtc tcaggagaag cgtggagcgg atatggagaa      2580
172 tataaaggaa ttgcgtcgaa ctatcttgcc gagctgcaag aaggagatac gattacgtgc      2640

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174 tttattttcca caccgcagtc agaattttacg ctgccaaaag accctgaaac gccgcttatac 2700
176 atggtcggac cggaacagg cgtcgcgccg tttagaggct ttgtgcaggc gcgcaaacag 2760
178 ctaaaagaac aaggacagtc acttgagaa gcacatttat acttcggctg ccgttcacct 2820
180 catgaagact atctgtatca agaagagctt gaaaacgccc aaagcgaagg catcattacg 2880
182 cttcataccg ctttttctcg catgccaaat cagccgaaaa catacgttca gcacgtaatg 2940
184 gaacaagacg gcaagaaatt gattgaactt cttgatcaag gagcgactt ctatatttgc 3000
186 ggagacggaa gccaaatggc acctgccgtt gaagcaacgc ttatgaaaag ctatgctgac 3060
188 gttcaccaag tgagtgaagc agacgctcgc ttatggctgc agcagctaga agaaaaaggc 3120
190 cgatacgcaa aagacgtgtg ggctgggtaa 3150
193 <210> SEQ ID NO: 3
194 <211> LENGTH: 7
195 <212> TYPE: PRT
196 <213> ORGANISM: Artificial Sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: Linker
201 <220> FEATURE:
202 <221> NAME/KEY: DOMAIN
203 <222> LOCATION: (1)..(7)
204 <223> OTHER INFORMATION: Linker
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209 Thr Asp Gly Thr Ser Ser Thr
210 1 5
213 <210> SEQ ID NO: 4
214 <211> LENGTH: 7
215 <212> TYPE: PRT
216 <213> ORGANISM: Artificial Sequence
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219 <223> OTHER INFORMATION: Linker
221 <220> FEATURE:
222 <221> NAME/KEY: DOMAIN
223 <222> LOCATION: (1)..(7)
224 <223> OTHER INFORMATION: Linker
227 <400> SEQUENCE: 4
229 Thr Asp Gly Ala Ser Ser Ser
230 1 5
233 <210> SEQ ID NO: 5
234 <211> LENGTH: 17
235 <212> TYPE: PRT
236 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: Linker
241 <220> FEATURE:
242 <221> NAME/KEY: DOMAIN
243 <222> LOCATION: (1)..(17)
244 <223> OTHER INFORMATION: Linker
247 <400> SEQUENCE: 5
249 Thr Asp Gly Thr Arg Pro Gly Pro Gly Pro Gly Pro Gly Pro Ser Ser
250 1 5 10 15
253 Thr

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257 <210> SEQ ID NO: 6
258 <211> LENGTH: 21
259 <212> TYPE: PRT
260 <213> ORGANISM: Artificial Sequence
262 <220> FEATURE:
263 <223> OTHER INFORMATION: Linker
265 <220> FEATURE:
266 <221> NAME/KEY: DOMAIN
267 <222> LOCATION: (1)..(21)
268 <223> OTHER INFORMATION: Linker
271 <400> SEQUENCE: 6
273 Thr Asp Gly Thr Arg Pro Gly Pro Gly Pro Gly Pro Gly Pro Gly Pro
274 1          5          10          15
277 Gly Pro Ser Ser Thr
278          20
281 <210> SEQ ID NO: 7
282 <211> LENGTH: 4
283 <212> TYPE: PRT
284 <213> ORGANISM: Artificial Sequence
286 <220> FEATURE:
287 <223> OTHER INFORMATION: Linker
289 <220> FEATURE:
290 <221> NAME/KEY: DOMAIN
291 <222> LOCATION: (1)..(4)
292 <223> OTHER INFORMATION: Linker
295 <400> SEQUENCE: 7
297 Pro Leu Glu Leu
298 1
301 <210> SEQ ID NO: 8
302 <211> LENGTH: 7
303 <212> TYPE: PRT
304 <213> ORGANISM: Artificial Sequence
306 <220> FEATURE:
307 <223> OTHER INFORMATION: Linker
309 <220> FEATURE:
310 <221> NAME/KEY: DOMAIN
311 <222> LOCATION: (1)..(7)
312 <223> OTHER INFORMATION: Linker
315 <400> SEQUENCE: 8
317 Thr Asp Gly Gly Ser Ser Ser
318 1          5
321 <210> SEQ ID NO: 9
322 <211> LENGTH: 51
323 <212> TYPE: DNA
324 <213> ORGANISM: Artificial Sequence
326 <220> FEATURE:
327 <223> OTHER INFORMATION: Primer
329 <220> FEATURE:
330 <221> NAME/KEY: misc_feature

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331 <222> LOCATION: (1)..(51)
332 <223> OTHER INFORMATION: Primer
335 <400> SEQUENCE: 9
336 gagattaaga attcataaac acatgggagt gcgtgccata tgaacgcaa c      51
339 <210> SEQ ID NO: 10
340 <211> LENGTH: 36
341 <212> TYPE: DNA
342 <213> ORGANISM: Artificial Sequence
344 <220> FEATURE:
345 <223> OTHER INFORMATION: Coding Sequence
347 <220> FEATURE:
348 <221> NAME/KEY: variation
349 <222> LOCATION: (1)..(36)
350 <223> OTHER INFORMATION: Desired coding sequence
353 <400> SEQUENCE: 10
354 gaactgagta gtgccactga cggaggatcc tcatcg      36
357 <210> SEQ ID NO: 11
358 <211> LENGTH: 36
359 <212> TYPE: DNA
360 <213> ORGANISM: Artificial Sequence
362 <220> FEATURE:
363 <223> OTHER INFORMATION: Primer
365 <220> FEATURE:
366 <221> NAME/KEY: misc_feature
367 <222> LOCATION: (1)..(36)
368 <223> OTHER INFORMATION: Primer
371 <400> SEQUENCE: 11
372 cgatgaggat cctccgtcag tggcactact cagttc      36
375 <210> SEQ ID NO: 12
376 <211> LENGTH: 36
377 <212> TYPE: DNA
378 <213> ORGANISM: ARTIFICIAL SEQUENCE
380 <220> FEATURE:
381 <223> OTHER INFORMATION: Primer
383 <220> FEATURE:
384 <221> NAME/KEY: misc_feature
385 <222> LOCATION: (1)..(36)
386 <223> OTHER INFORMATION: Primer
389 <400> SEQUENCE: 12
390 tcatcgggat cctcatcgat gtctaaagta gtgtat      36
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395 <212> TYPE: DNA
396 <213> ORGANISM: Artificial Sequence
398 <220> FEATURE:
399 <223> OTHER INFORMATION: Desired Coding Sequence
401 <220> FEATURE:
402 <221> NAME/KEY: misc_feature
403 <222> LOCATION: (1)..(52)

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**VERIFICATION SUMMARY**

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Input Set : A:\P02196US0.txt

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L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date